

REMARKS

The Examiner is thanked for the Official Action dated February 18, 2005. This amendment and request for reconsideration is intended to be fully responsive thereto.

Figures 1-4 were objected to for failure to include the designation "Prior Art" as required by MPEP 608.02(g). Applicant has attached "Replacement Sheets" showing this change made to Figures 1-4. No new matter has been entered.

The Abstract was objected to for a minor typographical error which has been corrected by the above amendment.

The specification is objected to for minor informalities which have been corrected by the above amendment. No new matter has been entered.

Claim 9 was rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the written description requirement; specifically, the phrase "the platen column is not connected with the platen web." Applicant hereby provides the following facts to support the fact that the present invention

The conventional design theory concludes that finite stiffness of platen column is detrimental and higher platen column stiffness is desired. That is, the platen column should be thick and well stiffened. The designer struggles to stiffen the platen column with acceptable cost.

According to the new design set forth in this patent application, the platen column should be disconnected from webs. In the new design, the presence of a finite stiffness of the platen column is helpful and low platen column stiffness is desired. The invention is used for improving the tie-rod fatigue performance. Notably, a lower platen column stiffness also increases the rigidity of the press (under the same service load, the opening is reduced). Because the tie-rod

fatigue life is the major or one of the major mechanical/structural issues of a press design, this invention implies a lighter production and low cost, or higher tonnage capacity.

The theory/concept behind is new, and the new design is based on the new theory/findings. The difference is reflected by whether the platen column is stiffened by or connected to webs.

Turning to the specification, Figs. 4-7 show the platen column (12) is connected with the platen web (14, 16) via the base portion (1). The limitation "the platen column not connected with the platen web" means that the platen column is not "stiffened" by the webs -- that means the webs are not connected with the platen column along the whole or major length of the column --- that also means the webs are not part of the platen column, but the web(s) sit or is welded on the platen base portion.

The Examiner stated that "the platen column is connected with the platen web via the base portion". While his statement is partially correct (i.e., all parts are "connected" together to form a machine), the prior art requires that the platen column be stiffened by webs, the thicker platen column and webs, the better. The new design of this invention disconnects the platen column from webs; i.e., the thinner the platen column the better.

Once the platen column is "disconnected" from webs, the load path changes (whether it is physically a part of the base portion), the influence of the platen column stiffness changes from detrimental to helpful, and the fatigue life of the tie-rod is improved.

Applicant has amended the claims to clarify the structure of this invention to address the examiner's concerns. All claims are supported by the original description and no new matter has been entered.

Claims 1-13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lasko (USP 3,030,879) in view of Mueller (USP 4,309,893). Applicant respectfully disagrees.

The prior art emphasizes that the platen column, webs and base portion are integrated as a connected unit to maintain "stability", "rigidity" or "strength", and never disclose that there is any possibility that the platen column may be remote from the reinforcing webs. The present invention recites a structural solution that is opposite to the prior art, that is, a platen column that is separated from webs.

In US Patent 3030879 to Lasko, the platen column is directly connected to the reinforcing web. At column 2, lines 30-32, Lasko '879 states "The bed plate, grid structure (reinforcing webs), corner box sections (platen columns) and lower plates are all welded together into an integral bed unit" and at column 2, lines 60-62, Lasko '879 states "The platen, as in the case of the bed 12 and head 16, is also formed as a grid structure for rigidity and reduced weight."

In US Patent 4309893 to Mueller, the platen column is likewise directly connected to the reinforcing web. Mueller '893 at column 3, lines 28-30, Mueller '893 states "Press crown (e.g., platen) 10 is generally discernible as having three distinct but integral region", which are lug portion 22 (tube platen column), central plug region 30 and transition arms 46 (reinforcing webs).

According to the principles of this invention, once the platen column is disconnected (i.e., being spaced or remote) from webs, the load path changes and the influence of the platen column stiffness changes from detrimental to helpful, and the fatigue life of the tie-rod is improved.

In the original application text, the applicant repeatedly points out that the conventional design has a Platen Column connected to the reinforcement webs; and then repeatedly

emphasizes that the present invention is unique because of its Platen Column disconnected from the reinforcing webs along the column axial length so that the total compression load from the tie-rod is carried only by the platen column. In the original drawings Figures 5-7, the applicant repeatedly show the main difference of the invention from the convention design; that is, where the Platen Column is not directly connected to (i.e., remote from) the reinforcing webs.

Claim 1 has been amended to recite that the web portion(s) is not "rigidly connected" with the platen column along the axial length of the platen column. Claim 10 has been amended to clarify that the platen webs are remote from the platen column such that the "platen webs do not directly contact" the platen columns. This arrangement improves tie rod fatigue and performance while providing a lighter production and low reduced cost or higher tonnage capacity.

It is respectfully submitted that the pending claims are in condition for allowance and notice to that effect is earnestly solicited. Should the Examiner believe further discussion regarding the above claim language would expedite prosecution they are invited to contact the undersigned at the number listed below.

Respectfully submitted:

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